

U.S. Pat. App. Ser. No. 10/563,993

Attorney Docket No. 10191/4439

Supplemental Amendment to Final Office Action of November 25, 2008

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of The Claims:

1-18. (Canceled).

19. (Previously Presented) A microstructured sensor, comprising:

one measurement chip in which there is formed a first measurement area having a first measurement structure and at least one second measurement area having a second measurement structure, the measurement areas being offset to one another in a lateral direction;

one cap chip that is made of silicon and is fastened in vacuum-tight fashion to the measurement chip in a connecting area;

one intermediate space, formed between the measurement chip and the cap chip, that is sealed outwardly by the connecting area and in which the measurement areas are situated; and

at least one contact area, formed on the measurement chip, and left exposed by the cap chip, for the contacting of the measurement chip, wherein between the measurement areas there is formed a wafer bond support point in which the cap chip is fastened on the measurement chip;

wherein it is a gas sensor for measuring a gas concentration, the first measurement area is provided for the detection of incident infrared radiation in a first wavelength range, the second measurement area is provided for the measurement of infrared radiation in a second wavelength range, and the cap chip is transparent to the infrared radiation that is to be measured.

20. (Canceled).

21. (Previously Presented) The microstructured sensor according to Claim 19, further comprising:

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at least two contact areas on the measurement chip, formed on different sides of the measurement chip and left exposed by the cap chip, for the contacting of the measurement chip.

22. (Canceled).

23. (Previously Presented) The microstructured sensor according to Claim 19, wherein the measurement structures each have a membrane undercut with a cavity, a thermopile structure formed on the membrane, and an absorber layer applied on the thermopile structure.

24. (Canceled).

25. (Previously Presented) The microstructured sensor according to Claim 21, wherein the measurement areas and the contact areas are essentially offset to one another by 180° in relation to a point of symmetry of the measurement chip.

26. (Previously Presented) The microstructured sensor according to Claim 21, wherein the contact areas are formed on sides situated opposite one another in a longitudinal direction, and are situated so as to be offset to one another in the lateral direction.

27. (Previously Presented) The microstructured sensor according to Claim 21, wherein the contact areas are formed on the sides of the measurement chip situated opposite one another in the lateral direction.

28. (Previously Presented) The microstructured sensor according to Claim 21, wherein the measurement areas are situated adjacent to one another in the lateral direction, and at least one contact area is formed on each of the four sides of the measurement chip.

29. (Canceled).

30. (Previously Presented) The microstructured sensor according to Claim 19, wherein the wafer bond support point is interrupted.

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31. (Previously Presented) The microstructured sensor according to Claim 19, wherein the cap chip covers the measurement chip essentially completely except for the contact areas.

32. (Canceled).

33. (Canceled).

34. (Canceled).

35. (Previously Presented) A sensor module, comprising:

a microstructured sensor, including:

one measurement chip in which there is formed a first measurement area having a first measurement structure and at least one second measurement area having a second measurement structure, the measurement areas being offset to one another in a lateral direction;

one cap chip that is made of silicon and is fastened in vacuum-tight fashion to the measurement chip in a connecting area;

one intermediate space, formed between the measurement chip and the cap chip, that is sealed outwardly by the connecting area and in which the measurement areas are situated; and

at least one contact area, formed on the measurement chip, and left exposed by the cap chip, for the contacting of the measurement chip, wherein between the measurement areas there is formed a wafer bond support point in which the cap chip is fastened on the measurement chip;

a lead frame; and

a housing that surrounds a part of the lead frame and the microstructured sensor, wire bonds running from the at least one contact area of the measurement chip of the microstructured sensor in various directions to the lead frame;

wherein the microstructured sensor is fastened and contacted on an evaluation chip that is contacted to the lead frame.

36. (Canceled).